support. Second, U S WEST's high capacity services in the Phoenix area would be removed from price cap and rate of return regulation, which are appropriate only for dominant carrier services. Third, U S WEST would be allowed to charge deaveraged rates for high capacity services within the Phoenix MSA. The effect of granting U S WEST's Petition would be to place U S WEST on equal footing with all other competitors in the Phoenix area market for high capacity services.

V. CONCLUSION

Congress adopted Section 10 because it recognized that regulation is unnecessary, and indeed harmful, in a competitive market. Under Section 10, the Commission is required to eliminate regulations that are no longer necessary to ensure that rates and practices are just, reasonable and not unreasonably discriminatory. U S WEST has gathered substantial evidence in support of its petition demonstrating that the market for high capacity services in the Phoenix MSA is robustly competitive. In light of U S WEST's lack of market power, competition, without dominant carrier regulation, is sufficient to constrain U S WEST's ability to impose anti-competitive prices and other terms and conditions of service.

Section 10 also requires that the Commission consider whether forbearance will promote competitive market conditions. There is no question that allowing U S WEST to compete on equal footing with its competitors serves the public interest and enhances competition. Today, U S WEST is uniquely burdened by dominant carrier regulations that hamper its ability to freely compete in the Phoenix area market for high capacity services. Removing these regulatory

obstacles will allow U S WEST to initiate price reductions and new services, and respond quickly and creatively to competition.

For these reasons, the Commission should grant U S WEST's Petition and exercise its authority to forbear from regulating U S WEST as a dominant carrier in the provision of high capacity services in the Phoenix MSA.

Respectfully submitted,

U S WEST COMMUNICATIONS, INC.

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Its Attorneys

Of Counsel,
Dan L. Poole

August 24, 1998

ATTACHMENT A

U S WEST

HIGH CAPACITY MARKET STUDY

PHOENIX

METROPOLITAN STATISTICAL AREA

August 7, 1998

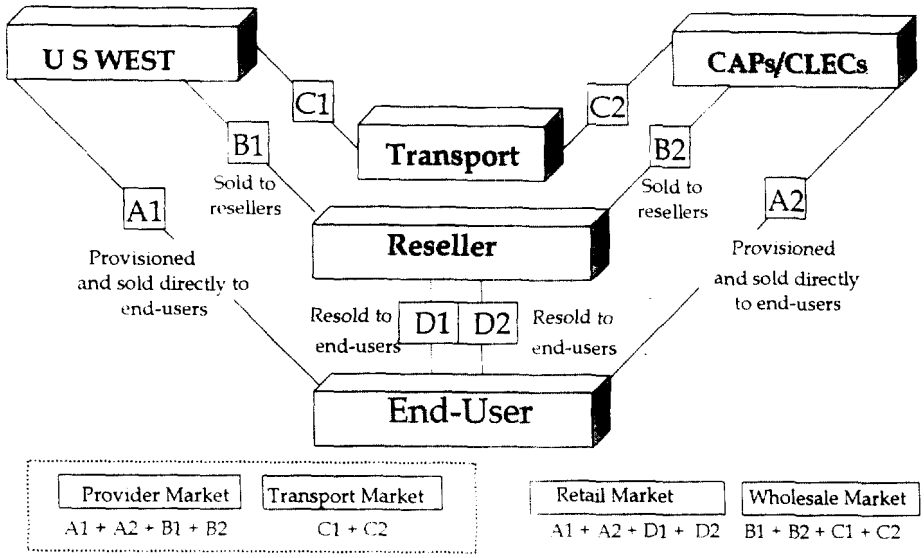
QUALITY STRATEGIES®
WASHINGTON, D.C.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

This report analyzes the state of competition in the market for high capacity telecommunications services (i.e., DS1 and above) in the Phoenix, Arizona, metropolitan area. QUALITY STRATEGIES was asked to: describe the Phoenix High Capacity Market; describe the market participants; estimate the market shares of U S WEST and the other market participants; and to estimate the capacity of competitive providers of high capacity services in Phoenix.

The Phoenix market for high capacity services can be best described as a three tier market, as illustrated below, with U S WEST and other CAP/CLEC providers selling services to end users, resellers, and other carriers for "transport" purposes. This market can be sub-divided based on who high capacity services are sold to – Retail and Wholesale Markets – versus who is actually providing the underlying facilities – the Provider and Transport Markets.



Prior to the mid-1990's U S WEST largely had the Phoenix High Capacity Market to itself. Since 1994, MCI, GST, TCG, ELI, and MFS WorldCom have all turned-up high capacity networks in Phoenix. All of these competitors are seasoned well-financed telecommunications companies. Collectively, these five competitors have installed over 800 route miles of optical fiber and have connected several hundred buildings in the Phoenix area to their networks.

The growth in alternative fiber networks is reflected in market share data. In all cases, U S WEST's market share appears to be declining at a relatively rapid rate. As of the end of 1997, only 30% of the retail customers purchased high capacity services directly from U S WEST. The other 70% purchased services from resellers and other CAPs/CLECs. The situation was reversed with respect to the actual provision of high capacity service – where U S WEST accounted for 72.1% of the Provider Market and 84.1% of the Transport Market with the other providers accounting for the remainder. Even these relatively high market shares represent a significant decrease from the end of 1994 when U S WEST serviced 94.1% of the Provider Market.

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Recent data indicates that other CAPs/CLECs are capturing approximately half of the growth in high capacity services in the rapidly growing Phoenix market. Between the second and the fourth quarters of 1997, providers other than U S WEST accounted for 54% of the growth in the Provider Market and 42% of the Transport Market. This trend is expected to continue due to the fact that U S WEST competitors in Phoenix have an enormous amount of unused capacity in their existing fiber networks. It is estimated that less than 8% of the capacity of these competitive networks would be needed to handle all of U S WEST's existing traffic.

Both U S WEST's relatively low Retail Market share and the large amount of unused capacity in competitive networks make it highly likely that U S WEST's share of the Provider and Transport Markets will continue to decline. This decline will be exacerbated, particularly in the Transport Market, by continued consolidation in the telecommunications industry (e.g., the merger of AT&T and TCG).

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INTRODUCTION

BACKGROUND

Although the Telecommunications Act of 1996 formally opened the local exchange market to competition for the first time, U S WEST has been experiencing competition of another type for several years. In the early part of the 1990s, Competitive Access Providers (CAPs) began installing fiber facilities in the Phoenix Metropolitan Statistical Area (MSA) to compete directly with the incumbent local exchange carrier, U S WEST, for a portion of its market.

Primarily, the CAPs began offering high capacity (DS-1 and DS-3) circuits to end-users and carriers as a means of bypassing the local exchange carrier (U S WEST). High capacity circuits are used to transport traffic between end user premises, from end-user premises to carrier Points of Presence (POPs) or to transport traffic between POPs and Central Offices (COs) or tandems.

THE HIGH CAPACITY MARKET

The High Capacity Market can be segmented in several ways. First, because high capacity circuits are used for two distinct purposes, two separate sub markets emerged: 1.) the Provider Market and 2.) the Transport Market. For purposes of this study, we will refer to the combination of the two as the High Capacity Market. Please refer to the graphic on page 9 for a visual description of this concept.

- Provider Market: Provider circuits are DS-1 and DS-3 circuits provisioned by a facilities-based local telecommunications provider (either U S WEST or a CAP). These circuits are ultimately purchased by end-users to transmit voice and data traffic from the end user's premise to a POP or CAP switching center. The provider does not always sell the circuit directly to the end user.
- Transport Market: Transport circuits are high capacity lines purchased by carriers to transmit voice and data traffic from one POP to another or to transmit voice and data traffic from a POP to a Central Office or tandems (for distribution). Transport circuits are purchased by one communications company from another communications company.

The overall High Capacity Market can also be viewed as consisting of a Wholesale Market and a Retail Market. Often a Local Exchange Carrier or CAP provisions a circuit, it does not necessarily maintain the account or bill for it - because it is often resold by another carrier. Because of this situation, QUALITY STRATEGIES is also providing Retail and Wholesale views of the High Capacity Market.

- Retail Market: the retail view is another method of distributing provider share. Instead of crediting the company that provisions the circuit, it credits the company that sells and bills for the circuit and maintains the relationship with the end user.
- Wholesale Market: the wholesale view consists of circuits provisioned by a local telecommunications provider (either U S WEST or a CAP) and sold to another telecommunications provider - either for resale to end users or for transport. Please refer to the graphic on page 9 for a visual description of this concept.

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These distinct views became necessary as the High Capacity Market began to mature and purchasing patterns began to deviate from the typical provider - purchaser standard. From the outset, CAPs attempted to form alliances with long distance carriers to provide the private lines linking their customers to their POPs, as well as providing their transport facilities. It is from these beginnings that the concept of High Capacity resale was formed necessitating the Retail and Wholesale views to supplement Provider and Transport views. At present, many CAPs operating in the Phoenix market sell more circuits to long distance carriers than to end users. Because of this, Provider and Retail market share figures illustrate very distinct distributions, although both measure the same market.

COMPETITORS

Currently, the following five CAPs operate networks in the Phoenix MSA (Maricopa and Pinal Counties) and compete with U S WEST for Provider and Transport market share:

- MFS WorldCom
- Teleport Communications Group (TCG)
- MCI
- GST
- Electric Lightwave, Inc. (ELI)

Each of the five aforementioned competitors has invested resources to build optical fiber networks in the Phoenix area that compete directly with U S WEST. Collectively, the five competitors have installed over 800 route miles of optical fiber and connected several hundred buildings to their networks. Equipped as they are today, the CAPs could assume all of U S WEST's Provider and Transport traffic with their networks at less than 8% capacity. This would leave the other 92% to capture future growth of bandwidth demand.

Because the High Capacity (Transport and Provider) Market is very specialized, the CAPs have become niche communications providers catering to interexchange carriers and business customers in particular vertical segments (particularly financial services, health care, and information transfer). This has allowed CAPs to focus on small geographic areas when constructing fiber networks (particularly central business districts and business-intensive suburbs).

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MARKET SHARE

To formulate market share estimates, QUALITY STRATEGIES considered several inputs. Results are primarily based on primary, survey market research that elicits share figures based on end user data. Additionally, QUALITY STRATEGIES analysts conducted an exhaustive competitive research analysis to gather additional information about each market examined.

As of the fourth quarter of 1997, U S WEST's share of the High Capacity Market was 77%. During this time, U S WEST share of the Provider Market was 72%. In other words, U S WEST facilities constituted 72% of circuits being used by end users for DS-1 and DS-3 high capacity services. U S WEST retained less than 30% of the Retail Market - meaning U S WEST maintained a relationship with fewer than one third of all end users in the fourth quarter of 1997. The disparity is largely the result of carrier purchases of U S WEST/CAP circuits for resale to end-users.

In the fourth quarter, U S WEST circuits constituted approximately 84% of the Phoenix Transport Market (down from 94% in the second quarter of 1997). CAPs generally install extraordinary amounts of excess capacity around long distance POPs and local COs and are capable of absorbing traffic from U S WEST facilities immediately. This is the primary reason for the significant drop in market share between the second and fourth quarters of 1997; by installing excess capacity, CAPs have facilitated a situation where traffic can be easily migrated from one carrier's facilities (U S WEST) to another's (Phoenix CAPs). U S WEST's Transport share is particularly vulnerable to competitors as long distance carriers and CAPs begin to consolidate.

In addition to the Transport Market, recent telecom mergers and consolidations are likely to impact the Wholesale Market. In the fourth quarter of 1997, U S WEST accounted for approximately 79% of the Wholesale Market, which includes circuits sold to carriers for purposes of resale or for transport. As CAPs' and carriers' relationships grow, carriers are less likely to purchase wholesale circuits from U S WEST and become more reliant on acquired subsidiaries.

The continuing trend toward a declining market share for U S WEST becomes evident through an examination of its share of market growth over the last several quarters. Between the second and fourth quarters of 1997, U S WEST accounted for 58% of Transport Market growth and 46% of Provider Market growth. Losses in market growth may not become evident in installed-base share results for several quarters as the market grows and U S WEST accounts for a smaller percentage of the total. Share of growth is the primary indicator of how a competitor's installed-base market share will look in the future - and CAP competitors in the Phoenix area have captured a majority share of market growth over the past several years.

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OBJECTIVES

The primary objective of this report is to provide U S WEST with a high-level overview of the Phoenix MSA (Maricopa and Pinal Counties) High Capacity Market. The report is structured to meet this objective by providing:

- A description of the High Capacity Market and sub-markets
- A description of the High Capacity competitive landscape in the Phoenix MSA
- An estimate of the potential competitive capacity of existing fiber networks
- Market share estimates for U S WEST and its competitors

This report describes and defines the Phoenix MSA High Capacity Market, identifies the types of circuits included in the share estimates, briefly describes common high capacity applications, and identifies and describes the strengths and weaknesses of facilities based competitors in the Phoenix MSA. The competitive analysis identifies market trends, carrier consolidation, and purchaser capacity requirements.

CAPABILITIES AND EXPERIENCE

QUALITY STRATEGIES is a research and consulting firm working exclusively in the telecom industry. QUALITY STRATEGIES has provided competitive market information, including market share results and competitive market data to every RBOC and large LEC for the last decade.

QUALITY STRATEGIES maintains its own professional team of analysts, methodologists, client service personnel and calling centers focused exclusively on the telecommunications market.

QUALITY STRATEGIES believes that quantitative market share data can be coupled with qualitative competitive data to accurately describe and assess the market for high capacity circuits. The information provided in each section is designed to supplement that from the other. This analysis is based on primary and secondary market research conducted for U S WEST. Market Share estimates reflect fourth quarter, 1997 analyses. Overall Provider and Retail estimates are based on a 95% confidence interval with a ±5% margin of error. Wholesale and Transport market share estimates are primarily the result of extensive competitive research. (see appendix for additional information on methodology).

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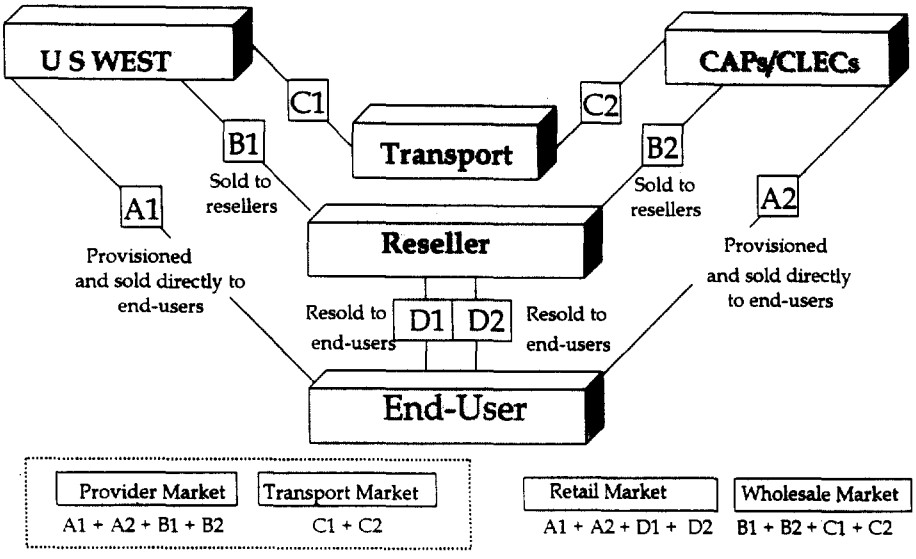
MARKET DESCRIPTION

HIGH CAPACITY MARKET

QUALITY STRATEGIES defines the High Capacity Market as the universe of DS-1 (1.544 mbps) and DS-3 (45 mbps) circuits used either for end user customer's traffic (Provider) or for carrier transport (Transport).

- End users utilize high capacity circuits to connect two business locations in the same LATA (point-to-point) or to connect to a carrier's point-of-presence (POP) (special access).
- Carriers utilize high capacity transport circuits to provide links between POPs, central offices, and tandems.

The following diagram depicts the various components of the High Capacity Market, which is represented by the sum of A1, A2, B1, B2, C1 and C2.



PROVIDER MARKET

Provider circuits are DS-1 and DS-3 circuits provisioned by a facilities-based local telecommunications provider (either U S WEST or a CAP). These circuits are ultimately purchased by end users to transmit voice and data traffic from the end user's premise to a POP or CAP switching center. The provider does not always sell the circuit directly to the end user. Referring to the visual, the Provider Market is defined as A1+A2+B1+B2.

TRANSPORT MARKET

Transport circuits are high capacity lines purchased by carriers to transmit voice and data traffic from one POP to another or to transmit voice and data traffic from a POP to a central office or tandems (for distribution). Transport circuits are purchased by one communications company from another communications company. Referring to the graphic, the Transport Market is comprised of C1+C2.

THE RETAIL MARKET

The retail view is another method of distributing Provider share. Instead of crediting the company that provisions the circuit, the Retail Market credits the company that sells and bills for the circuit and maintains the relationship with the end user. The Retail Market is defined as A1+A2+D1+D2 (see diagram page 9).

THE WHOLESALE MARKET

The wholesale view consists of circuits provisioned by a local telecommunications provider (either U S WEST or a CAP) and sold to another telecommunications provider - either for resale to end users or for transport. The Wholesale Market is comprised of B1+B2+C1+C2 (see diagram page 9).

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MARKET SHARE

Because the Phoenix market has become increasingly competitive over the last two years, U S WEST has experienced rapid, consistent erosion of its High Capacity Market share. QUALITY STRATEGIES has been tracking U S WEST's Provider Market share since 1994 and its Transport Market share since 1997. As could be expected, U S WEST's share of each market has decreased substantially as CAPs have entered the market and expanded existing facilities.

Following are several views of the High Capacity Market. All of the charts include DS-1 and DS-3 circuit information. On some of the charts DS-0 circuit information is also included. The charts which include DS-0 circuits are clearly labeled. DS-0 circuits are included because in some views of the market the survey results included DS-0 circuits and this information cannot be extracted. Overall the DS-0 circuits when converted to DS-1 equivalents do not appreciably affect the results, accounting for approximately 3% of the market.

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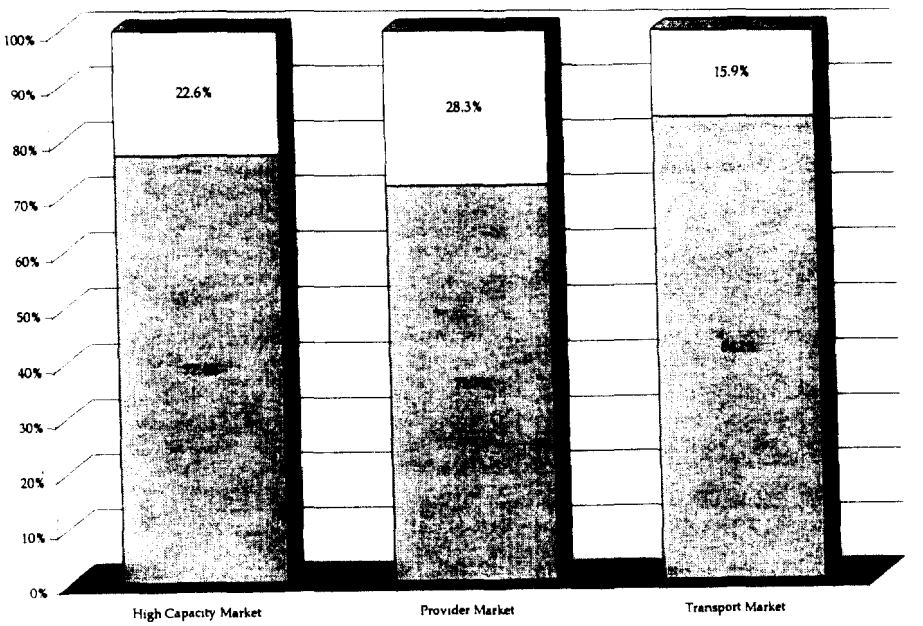
HIGH CAPACITY MARKET

U S WEST's market share for the fourth quarter of 1997 accounts for approximately 77% of the High Capacity Market in the greater Phoenix area. The market is comprised of the Provider Market (in which U S WEST accounts for approximately 72% of the total) and the Transport Market (in which U S WEST accounts for 84%).

PHOENIX MSA
U S WEST HIGH CAPACITY MARKET SHARE
4Q97



	U S WEST	Competitors
High Capacity	77.4%	22.6%
Provider	71.7%	28.3%
Transport	84.1%	15.9%

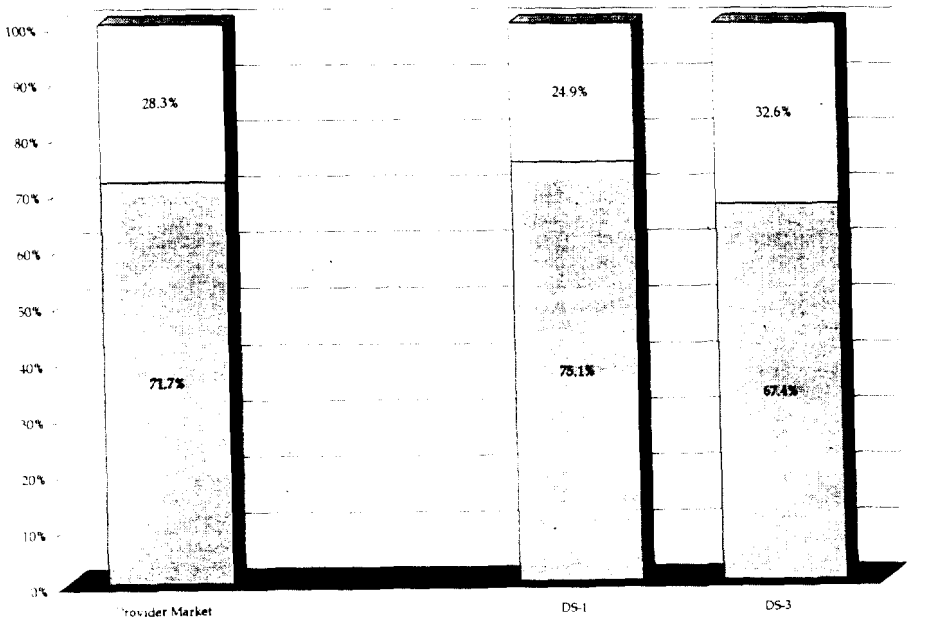
Results for Provider Market are presented at a 95% Confidence Level with a ±5% Margin of Error.

PROVIDER MARKET

To date, facilities-based competitors have captured over 28% of the Provider High Capacity Market in the Phoenix MSA. This can be attributed to recent marketing campaigns geared toward the end user and a proliferation of competitive alliances between CAPs and long distance carriers.

The High Capacity study was designed to measure U S WEST's and its competitors' share of DS-1 and DS-3 circuits. As a provider, U S WEST's share of the DS-3 market has declined more rapidly than its share of the DS-1 market. This is largely attributable to competitor's marketing strategies that attempt to secure accounts from large, bandwidth-intensive businesses. Because many of the larger businesses end users are located in Phoenix's central business district, competitors have been able to reach them on a facilities basis without investing a substantial amount of resources in infrastructure.

PHOENIX MSA
U S WEST PROVIDER MARKET RESULTS (BY CIRCUIT SPEED)
4Q97



	U S WEST	Competitors
Provider Market	71.7%	28.3%
DS-1	75.1%	24.9%
DS-3	67.4%	32.6%

Results for Provider Market are presented at a 95% Confidence Level with a ±5% Margin of Error. Disaggregated Share results have higher margins of error to account for smaller sample sizes

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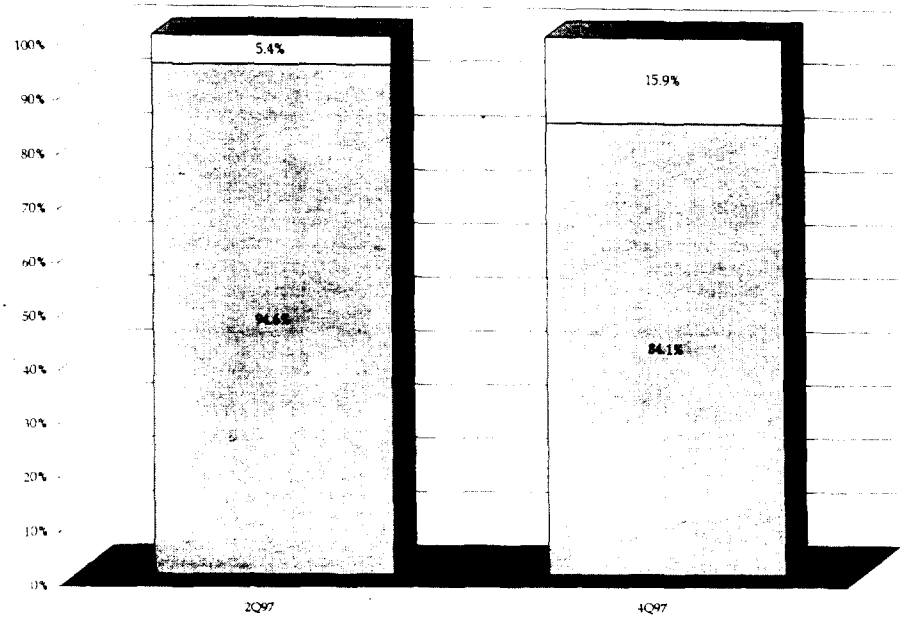
TRANSPORT MARKET

As has been the case in the Provider Market, CAPs are beginning to capture a large percentage of the Transport Market. As of fourth quarter, 1997, competitors comprise roughly 16% of the Transport Market, up from 5% in the second quarter of 1997. This is largely the result of a desire on the part of carriers to minimize dependence on U S WEST. Additionally, CAP share of the Transport Market is likely to increase substantially as they are absorbed by interexchange carriers and other, large telecommunications companies. Although U S WEST's share of the Transport Market is higher than its share of the Provider Market, Transport Market incremental losses have been far greater recently (over 10% since second quarter 1997) as CAPs and carriers have merged and formed competitive alliances. While U S WEST's market position is vulnerable in each market, many analysts foresee the rapid erosion of RBOC Transport Market share in the near future

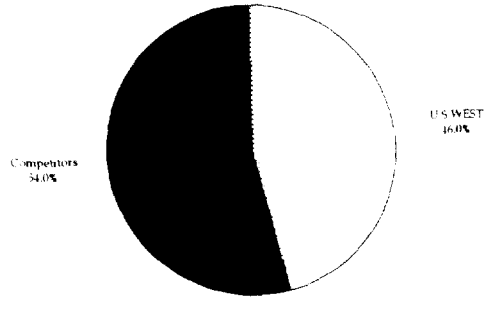
PHOENIX MSA
TRANSPORT MARKET SHARE
2Q97-4Q97



	2Q97	4Q97
U S WEST	**94.6%**	**84.1%**
Competitors	**5.4%**	**15.9%**
	100.0%	100.0%

PROVIDER MARKET GROWTH

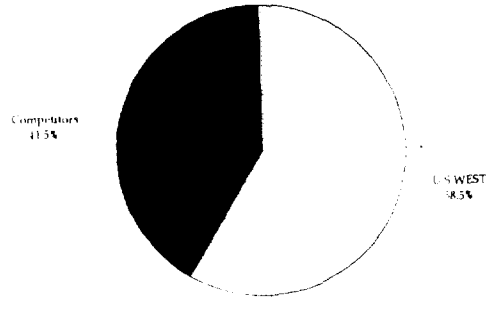
One of the key indicators of future market share in the telecommunications market is share of market growth in the present. Market growth is defined as new market growth (new subscriptions), the conversion of switched lines to high capacity facilities and competitive conversions. From the second quarter of 1997 to the fourth quarters of 1997, QUALITY STRATEGIES estimates the Provider Market grew 6.5%. Although U S WEST accounts for over 72% of Provider high capacity circuits, U S WEST accounted for roughly only 46% of the market growth. Facilities based competitors were responsible for over one half of new high capacity circuits added between June and September. At this rate, U S WEST can expect its share of the installed base to diminish to its share of market growth.



	2Q97 - 4Q97
U S WEST	46.0%
Competitors	54.0%
	100%

TRANSPORT MARKET GROWTH

Although U S WEST's share of the Transport Market growth is higher than its share of Provider Market growth, the facilities-based competitors account for a substantial percentage. Between the second and fourth quarters of 1997, U S WEST was responsible for less than 59% of new transport circuits. At this pace, U S WEST can expect its share of the installed base to continue to decline.



	2Q97 - 4Q97
U S WEST	58.5%
Competitors	41.5%
	100.0%

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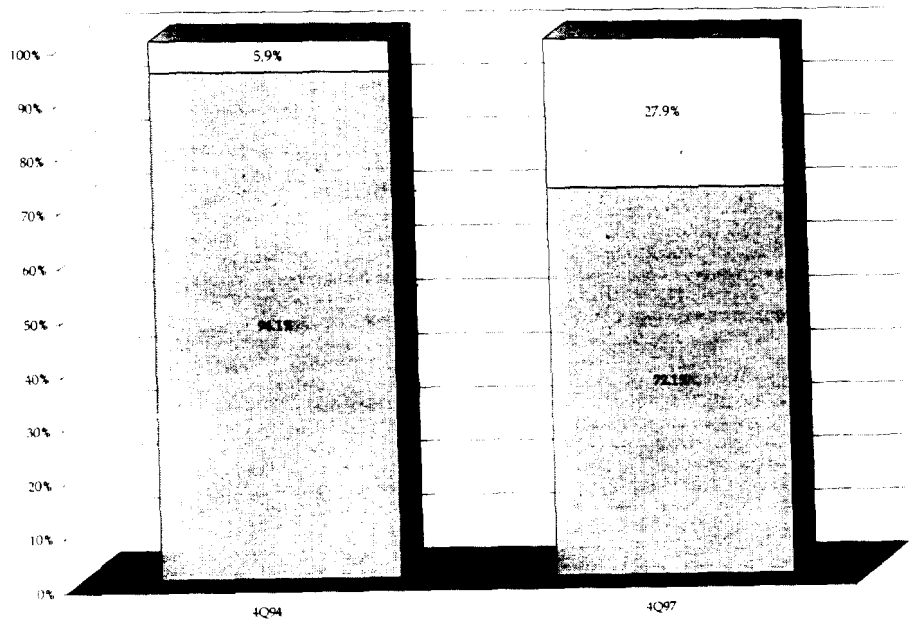
TREND

The most effective means of demonstrating U S WEST Provider Market share loss is to view its share over time. QUALITY STRATEGIES has been tracking high capacity data for U S WEST since the fourth quarter of 1994. Since that time, U S WEST has relinquished a considerable portion of the Provider Market. In 1994, TCG was the only CAP operating in the city - and its network was limited at that time. Over the next three years, the CAP presence in the Phoenix MSA grew rapidly and conversely, U S WEST's market share fell rapidly.

The following chart provides market share trend data. Trend includes DS-1, DS-3, and DS-0 circuits.

PHOENIX MSA
PROVIDER MARKET SHARE TREND*
4Q94-4Q97



	4Q94	4Q97	Δ 4Q 94–4Q 97
U S WEST	**94.1%**	**72.1%**	-22.0%
Competitors	**5.9%**	**27.9%**	22.0%
	100.0%	100.0%	

*Trend data for the Provider Market includes DS-0, DS-1, and DS-3 circuits.
Results for the Provider Market are presented at a 95% Confidence Level with a ±5% Margin of Error.

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RETAIL MARKET

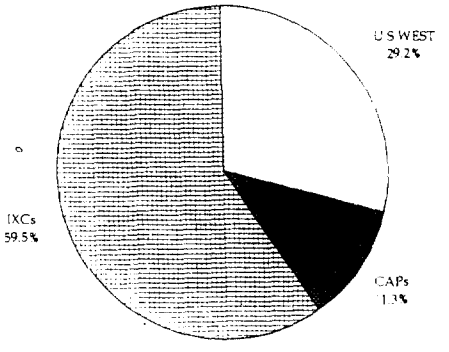
As indicated previously, the High Capacity Market can also be viewed as Retail and Wholesale Markets. In the Retail Market, competitors account for approximately 70% of end user relationships. U S WEST's largest competitors are currently AT&T, MCI, and Sprint. However, the vast majority of IXC-billed high capacity circuits are resold by the carrier rather than provisioned directly. As of fourth quarter 1997, AT&T's and TCG's combined retail share accounts for a greater percentage of the total market than U S WEST. Following completion of the AT&T/TCG and WorldCom/MCI mergers, the two aforementioned providers will comprise over 50% of the Retail Market.

This Retail data includes DS-1, DS-3, and DS-0 circuits.

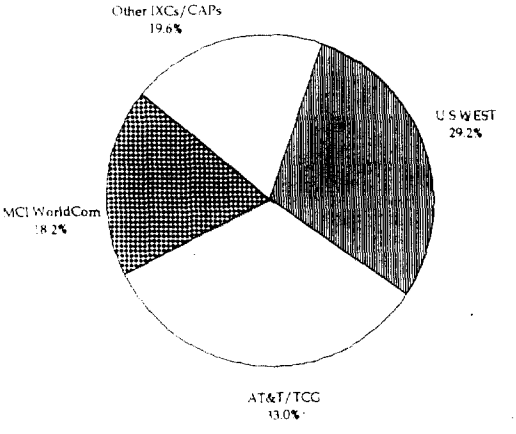
PHOENIX MSA

U S WEST MARKET SHARE OF THE RETAIL MARKET*

4Q97



RETAIL SHARE (U S WEST AND COMPETITORS)



Retail Share (IXCs and Acquired CAPs shown together)

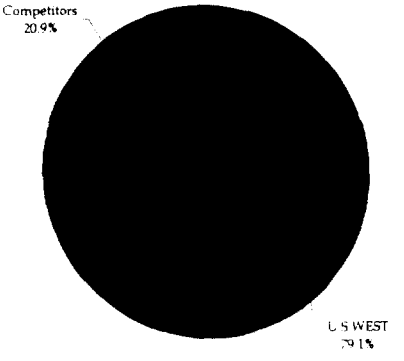
*Retail Market includes DS-0, DS-1, and DS-3 circuits.
Results for the Retail Market are presented at a 95% Confidence Level with a ±5% Margin of Error. Disaggregated Share results have higher margins of error to account for smaller sample sizes.

WHOLESALE MARKET

Currently, U S WEST accounts for less than 80% of the Wholesale Market (defined as the universe of circuits sold to resellers and circuits used for transport). However, U S WEST's share is likely to decrease substantially over the next several quarters following the completion of recent mergers in the telecom industry. AT&T and MCI will begin to take advantage of having local facilities at their disposal and attempt to decrease the amount of business it conducts with the RBOCs.

Wholesale data includes DS-1, DS-3, and DS-0 circuits.

PHOENIX MSA
U S WEST MARKET SHARE OF THE WHOLESALE MARKET*
4Q97



	4Q97
U S WEST	**79.1%**
Competitors	**20.9%**
	100.0%

*Wholesale Market includes DS-0, DS-1, and DS-3 circuits.

COMPETITIVE LANDSCAPE

OVERVIEW

As one of the largest MSAs in the nation, Phoenix has become home to numerous communications-intensive businesses that require high capacity DS-1 and DS-3 services. Phoenix is one of the most rapidly growing areas in the United States, with demand for these high capacity services expected to escalate. Analysts project that the Phoenix area will sustain an annual immigration rate of over 50,000 people for the next 15 years. This figure does not even take into account the area's birth rate, which is also likely to be higher than the national average due to Phoenix/Maricopa County's low median age. This growth in population will demand expansion of the telecommunications infrastructure to provision these high capacity services. U S WEST and its competitors will focus on meeting this demand.

Phoenix is currently host to one of the most competitive telecommunications markets in U S WEST's territory. While competitors' facilities once focused on the central business district exclusively, investments in network build-out over the last 24 months have resulted in fiber facilities that reach the furthest-lying suburbs. Today's competitive fiber networks connect several hundred buildings in Phoenix and transmit voice and data traffic for a variety of services including local exchange, high capacity, long distance and data.

U S WEST's competitors in the greater Phoenix area include facilities based CAPs such as TCG, WorldCom, ELI, GST and MCI. These companies offer a wide array of telecommunications products and services. A brief overview of these companies and their competitive presence in the Phoenix area follows.

COMPETITORS

MFS WORLDCOM

MFS WorldCom (formerly Metropolitan Fiber Systems) was established in the mid 1980s and partially financed by the Peter Keiwet construction company of Omaha, NE. In 1996, the assets of MFS were purchased by Jackson, MS-based LDDS WorldCom in an exchange of debt. MFS WorldCom operates metropolitan fiber networks in over 50 of the largest markets in the United States and is generally regarded as one of the leaders in competitive local telecommunications. In 1997, it purchased Brooks Fiber Properties and assumed its fiber networks in several tier II and tier III markets throughout the United States.

In Phoenix, MFS WorldCom's network has been operational since 1995 when it initiated service to several large end users and every major carrier in the central business district. Since then, the network has expanded to encompass a much broader geographic area.

MFS WorldCom's Phoenix network consists of four overlapping SONET rings featuring backbone speeds of OC-48. It is equipped with backup power sources and route diversity. In 1997, MFS WorldCom installed a central office switch in Phoenix that will allow it to diversify its product offering with the rollout of local exchange services. It currently operates two equipment sites in the area, one downtown and one on 44th Street. Currently, there are over 50 single and multi-tenant buildings connected to WorldCom's network in the Phoenix MSA.

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Traditionally, MFS WorldCom has targeted the middle market for telecommunications services. Although many of its high capacity customers represent the large business segment, a large percentage of its local exchange customers are smaller organizations. In several markets, MFS WorldCom has purchased telecommunications providers to establish a customer base - including several Centrex resellers in California. Although MFS has worked with every major IXC over the last several years, it prefers to sell directly to the end user and maintain the account itself. This is particularly true following the LDDS/WorldCom merger.

TELEPORT COMMUNICATIONS GROUP (TCG)

Along with MFS WorldCom, TCG is a national CAP/CLEC operating fiber networks in 60 of the United States' largest markets. It has been in existence since the late 1980s when it was founded by Robert Annunziata, a former AT&T employee who was then working for Merrill Lynch in New York. Mr. Annunziata is often credited for starting the CAP movement when he installed a fiber link connecting Merrill Lynch's Manhattan headquarters to the company's teleport on Staten Island. Initially, TCG was financed by Merrill Lynch but was later spun off and financed by several leading cable companies, Sprint, and public debt offerings.

TCG was among the first entrants to the Phoenix communications market when it initiated service along its fiber network in 1994. Presently, TCG operates the largest fiber network in the greater Phoenix area, spanning over 300 route miles and connecting between 120 and 150 single and multi-tenant buildings. TCG's network is composed of 11 self-healing SONET rings and is capable of providing facilities-based service to the majority of the MSA's business-intensive localities, including: downtown Phoenix, Scottsdale, Tempe, Mesa, and Chandler. Currently, TCG operates three equipment sites in the greater Phoenix area, two within the city of Phoenix as well as one in Tempe.

In 1996, TCG was authorized by the Arizona Public Utilities Commission to offer local switched services in the Phoenix area via its Lucent 5ESS central office switch. Traditionally, TCG has marketed integrated packages of telecommunications services to the largest business end users. However, TCG has recently modified that strategy and attempted to move "down-market." This is largely the result of its local exchange product rollout and the proliferation of high capacity use among smaller and medium-sized businesses.

Since 1994, TCG has adhered to a very aggressive expansion schedule, having completed a 30 route mile, OC-48 fiber ring in the Southeastern suburb of Chandler in 1997. Before beginning the extension, however, TCG secured a high capacity contract with Motorola - which operates a large office in Chandler.

GST

GST became a player in the Phoenix high capacity market in 1997 when it purchased the rights to the Phoenix Fiber Access network (which had previously been a 50/50 joint venture between GST and the IntelCom Group). The majority of the network was installed in 1996 and is largely limited to Phoenix's central business district.

Although GST's footprint in the Phoenix market may be smaller than several of its competitors, it plans to become a force in the Arizona communications market on a statewide level. In addition to its Phoenix network, GST operates facilities in the greater Tucson area (located approximately 120 miles South of Phoenix). Its Tucson network currently consists of over 70 route miles and connects several of the area's larger buildings. In 1997, GST completed construction of long-haul facilities connecting the Phoenix and Tucson markets; allowing it to target businesses operating in both locations. It will also allow GST to accumulate wholesale revenue by leasing capacity to other telecommunications companies.

GST is headquartered in Vancouver, WA and run by industry veteran John Warta (GST's chairman and CEO). GST operates networks throughout the western United States; focusing primarily on tier II and III markets. In the Southwest, GST runs metropolitan area networks in Phoenix, Tucson, Albuquerque, and Los Angeles. To route local traffic, GST has installed a Nortel DMS 500 central office switch at its equipment site on Lincoln Street at 18th Avenue.

MCI

In its attempt to become a full-service, facilities-based telecommunications provider in the greater Phoenix area, MCI has built a small fiber network in the city's central business district to transmit voice and data traffic. In contrast with several other CAPs/CLECs in Phoenix, MCI has not invested heavily in fiber facilities to serve end users on the city's periphery or in the suburbs. Instead, it has limited the scope of its network to the city's downtown area and connected the buildings that house its largest long distance accounts (to provide facilities-based high capacity service). MCI also provides services through resale.

Traditionally, MCI has targeted the large business segment for voice and data services (long distance, high capacity, data, and local exchange). Therefore, it finds itself competing primarily with U S WEST and TCG rather than MFS WorldCom and ELI. In Phoenix, MCI is the primary long distance carrier for several Fortune 500 companies - a sales channel that it frequently leverages to win high capacity and local exchange accounts. Today's MCI offers a variety of multi-service packages that include long distance, local exchange, high capacity and internet access.

In each of its local markets, MCI builds its fiber networks according to SONET ring architecture. Its network backbones run at speeds up to OC-48 and feature route diversity and electronic redundancy. To route local exchange traffic in Phoenix, MCI installed a Nortel DMS 500 in 1996 (although it was not activated until 1997)

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ELI

Having turned up its network in 1994, ELI was one of the first providers of competitive telecommunications services in the greater Phoenix area. Like MCI and MFS WorldCom, ELI originally limited the scope of its network to Phoenix's central business district. However, it decided to expand its network as the suburban demand for communications services increased. In 1997, ELI entered into a strategic alliance with the Salt River Project (SRP), an electric utility provider in the state of Arizona. Under the terms of the agreement, ELI leases substantial amounts of SRP dark fiber that traverses the entire area. The combined ELI-SRP network now encompasses over 400 route miles and is capable of delivering facilities-based service to Phoenix, Tempe, Scottsdale, Chandler, and Gilbert among others.

Historically, ELI has focused its marketing efforts on the middle market, although it has recently increased marketing campaigns directed toward Internet Service Providers (ISPs). One of its primary overall strategies is to establish several communications networks in the western United States and become a regional provider of communications services. At present, ELI operates competitive facilities in Phoenix, Salt Lake City, Las Vegas, Portland, and Seattle, enabling ELI to effectively market service to businesses operating in one or more of these markets. Additionally, ELI has established long-haul links between many of its markets and leases capacity to ISPs and other carriers.

ELI's network in Phoenix consists of multiple, overlapping SONET rings both in the city and in the suburbs. It employs a counter-rotating ring configuration in the construction of its backbone to add redundancy and protect against network failure. To ensure that fiber cuts do not result in lost traffic, ELI has built its network with route diversity and electronic redundancy to reroute traffic in milliseconds. In 1997, ELI installed a Nortel DMS 500 central office switch to route local exchange traffic.

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